

**IN THE CLAIMS:**

On page 24, cancel "*Claims*" and substitute:

**--I CLAIM AS MY INVENTION:--** therefor.

Cancel claims 1-11 and substitute the following claims therefor:

- 5           12.    A pacemaker comprising:
- an atrial detector adapted for interaction with a subject to detect atrial events;
- a ventricular detector adapted for interaction with said subject to detect ventricular events;
- 10          an atrial interval determination unit for determining an interval between successive atrial events detected by said atrial detector;
- a comparator for comparing said interval with a predetermined atrial tachycardia limit value and which generates and records an
- 15          indication of atrial tachycardia if said interval is less than said atrial tachycardia limit value;
- a stimulation administration arrangement adapted for interaction with said subject to administer stimulating therapy to said subject in a tracking mode and in a non-tracking mode;
- 20          a mode switching unit connected to said comparator and to said stimulation administration arrangement for switching said stimulation administration arrangement from said tracking mode to said non-tracking mode when a number of said indications of atrial tachycardia recorded by said comparator
- 25          reaches a predetermined count limit;
- a cardiac event interval determination unit for determining additional intervals between cardiac events detected by said atrial detector or said ventricular detector, during a pacemaker interval selected from the group consisting of an interval
- 30          between two consecutive ventricular stimulations by said

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stimulation administration arrangement and two consecutive R-wave detections by said ventricular detector; and

said cardiac event interval determination unit supplying said additional intervals to said comparator, and said comparator comparing said additional intervals to said tachycardia limit value and generating a non-tachycardia indication which reduces the recorded number of said indications of atrial tachycardia by one if at least one of said additional intervals during said pacemaker interval is longer than said tachycardia limit value.

13. A pacemaker as claimed in claim 12 wherein said cardiac event interval determination unit determines all intervals during said pacemaker interval detected by said atrial detector and said ventricular detector.

14. A pacemaker as claimed in claim 12 wherein said atrial detector comprises a P-wave detector for detecting normal sinus P-waves with a first sensitivity, and an atrial tachycardia detector for monitoring signals representative of atrial tachycardia, with a second sensitivity that is higher than said first sensitivity.

15. A pacemaker as claimed in claim 12 wherein said mode switching unit comprises an up/down counter which is incremented by one upon each indication of tachycardia and which is decremented by one by each non-tachycardia indication.

16. A pacemaker as claimed in claim 15 wherein said mode switching unit switches said stimulation administration arrangement back to said tracking mode if said up/down counter is decremented by a predetermined number from a count representing said tachycardia limit value.

17. A pacemaker as claimed in claim 15 wherein said mode switching unit switches said stimulation administration arrangement back to said tracking mode if said up/down counter is decremented to zero.

18. A pacemaker as claimed in claim 12 wherein said cardiac interval determining unit comprises at least one counter that is started by a detected cardiac event to count clock pulses until a preset value is reached corresponding to said tachycardia limit value, or until a stop event is detected by one of said atrial detector and said ventricular detector.

19. A pacemaker as claimed in claim 12 wherein said non-tracking mode is a DDI mode.

20. A pacemaker as claimed in claim 12 further comprising a unit for modifying an AV interval to allow detection of atrial events occurring within a ventricular blanking period.

21. A pacemaker as claimed in claim 20 wherein said unit for modifying the AV interval shortens said AV interval in response to a decrease of said pacemaker interval below a predetermined limit.

22. A pacemaker as claimed in claim 21 wherein said predetermined limit is twice said atrial tachycardia limit value.

23. A pacemaker as claimed in claim 12 wherein said stimulation administration arrangement generates stimulation pulses at a stimulation rate equal to a base rate upon detection of decreased cardiac activity by at least one of said atrial detector and said ventricular detector.

24. A pacemaker as claimed in claim 23 further comprising a sensor which detects a signal related to cardiac activity, said sensor being connected to said stimulation administration arrangement for setting said base rate dependent on said signal from said sensor.

**IN THE DRAWINGS:**

Please amend each of Figures 2, 3, 4 , 5, 6, 7, 8, 9, 10 and 11 as shown on the drawing copies marked in red attached to the Request for Approval of Drawing Changes, filed simultaneously herewith.